AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on line 7 of page 8 as follows:

A high pressure compressor according to the present invention 300 is shown in Figure 3. A high pressure piston ~~302~~ 318 rides on a piggyback drive piston 304. To assure long life of the compressor 300, a piston shaft ~~306~~ 320 is run through at least two liner bushings 322 and 323 equipped with oil grooves ported specifically for the return of oil to a crankcase 308. The liners 322 and 323 are fed oil through a high pressure gear pump 310 having an oil filter generating oil pressures in excess of 300 psig. Compressor heads 312 and 314 include check valve cartridges 332 and 333, respectively. The check valve cartridges according to the present invention facilitate cleaning to a high period of gas delivery as well as field repair and maintenance. Copolymer wipers 361 and 362 are provided to create a barrier preventing oil and contaminants from entering the compression chambers 316 and 318, respectively. The copolymer wipers 361 and 362 are formed from a variety of polymeric materials illustratively including glass filled Teflon with stainless backup rings. The compression chambers 316 and 318 are defined by composite material cylinder sleeves ~~320 and 322~~ 306 and 307. Preferably, piston components contacting the cylinder sleeves are formed of the same composite material. The composite material is selected to demonstrate high temperature stability, durability, chemical resistance and the ability to operate absent a liquid lubricant. Composite materials suitable for cylinder sleeve and piston manufacture illustratively include complementary grades of alumina oxide. Preferably, a cylinder sleeve and piston are machined in a matching set in order to obtain precision fits and seal.

Please amend the paragraph beginning on line 13 of page 9 as follows:

A compliant coupling 330 mounts between the drive piston 304 and the high pressure piston 302. The compliant coupling 330 allows the drive piston 304 to move while the pressure piston ~~302~~ 318 is securely and accurately guided within the cylinder sleeve 306. Compliant coupling 330 serves to reduce wear between the piston ~~302~~ 318 and the cylinder sleeve 306. The crank 324 has a double hung shaft 326 obviating a cantilever action on the crank 324 during compression cycles. The compressor 300 according to the present invention preferably operates at a speed of between about 600 and 800 rpms. More preferably, the compressor 300 operates at about 600 rpms, which is approximately one-third the speed of conventional compressors.